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Thiesing/OU=R10/O=USEPA/C=US@EPA;CN=Michael  
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Parkin/OU=R10/O=USEPA/C=US@EPA;CN=Tami Fordham/OU=R10/O=USEPA/C=US@EPA[]; N=Heidi  
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Holsman/OU=R10/O=USEPA/C=US@EPA;CN=Mary  
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Parkin/OU=R10/O=USEPA/C=US@EPA;CN=Tami Fordham/OU=R10/O=USEPA/C=US@EPA[]; N=Tami  
Fordham/OU=R10/O=USEPA/C=US@EPA[]  
**Cc:** CN=Denise Keehner/OU=DC/O=USEPA/C=US@EPA;CN=David  
Evans/OU=DC/O=USEPA/C=US@EPA;CN=Jim  
Pendergast/OU=DC/O=USEPA/C=US@EPA;CN=Christopher Hunter/OU=DC/O=USEPA/C=US@EPA[];  
N=David Evans/OU=DC/O=USEPA/C=US@EPA;CN=Jim  
Pendergast/OU=DC/O=USEPA/C=US@EPA;CN=Christopher Hunter/OU=DC/O=USEPA/C=US@EPA[];  
N=Jim Pendergast/OU=DC/O=USEPA/C=US@EPA;CN=Christopher  
Hunter/OU=DC/O=USEPA/C=US@EPA[]; N=Christopher Hunter/OU=DC/O=USEPA/C=US@EPA[]  
**Bcc:** []

**From:** CN=Palmer Hough/OU=DC/O=USEPA/C=US  
**Sent:** Thur 2/24/2011 3:31:42 PM  
**Subject:** FYI: Wardrop PA says Alaska's Pebble copper-gold project of global importance

BB Team:

FYI, interesting report released yesterday describing the estimated value of the Pebble mine.

-Palmer

<http://www.mineweb.com/mineweb/view/mineweb/en/page103118?oid=121360&sn=Detail&pid=102055>

Wardrop PA says Alaska's Pebble copper-gold project of global importance  
Wardrop's 43-101 report suggests the mine life of the Pebble copper-gold-moly project could span from 25 to 78 years, yielding billions of pounds of copper, and millions of gold ounces.

Author: Dorothy Kosich

Posted: Thursday , 24 Feb 2011

#### RELATED STORIES

##### RENO, NV -

The controversial Pebble Copper-Gold-Molybdenum Project in southwest Alaska could operate for as long as 78 years and become "one of the most important metal producers of the 21st Century," a preliminary assessment report by Wardrop reveals.

The NI 43-101 technical report made public Wednesday depicted Pebble as "a superior, long-life mineral development opportunity of global importance. As presented in the Preliminary Assessment, project economics are robust and support a mine development that is both technically feasible and permissible under existing regulatory standards in Alaska."

Wardrop's analysis offered three development cases for the Pebble Project spanning from 25 years to 78 years. The Investment Decision Case (IDC Case) calls for an initial 25-year open pit mine life upon which mine permitting, construction and operations may be based.

The preliminary assessment determined the Pebble measured and indicated resource contains 55 billion pounds of copper, 67 million ounces of gold, and 3.3 billion pounds of molybdenum.

A 45-year assessment, called the Reference Case, would produce 31 billion pounds of copper, 30 million ounces of gold, 1.4 billion pounds of moly, 140 million ounces of silver, 1.2 million kg of rhenium and 907,000 ounces of palladium, while mining 32% of the total Pebble resource.

Initial capex for all three development cases are estimated at US\$4.7 billion, excluding capital costs for outsourced power, road and port infrastructure. Net Smelter Return for the 45-year Reference Case averages \$2.67 billion annually and totals \$120.2 billion over the life of the mine.

However, phases of mine development beyond 25 years would require separate permitting and development decisions to be made in the future.

The 78-year Resource Case would develop 55% of the Pebble mineral resource over eight decades.

The development of the Pebble mine would require an 86-mile transportation coordinator to link the mine site to a new, permanent deep-water port that would be developed at the entrance to Iniskin Bay on Cook Island.

According to the Pebble partnership agreement, Anglo American is required to commit \$1.425 billion to \$1.5 billion in staged investments in order to retain a 50% interest in the Pebble Project. As of the end of last year, Anglo American had invested \$325 million to advance the project. Northern Dynasty retains a 50% interest in Pebble.

In their analysis Wardrop noted, "Numerous compelling exploration targets exist within the 186-square mile Pebble property claim boundary."

Meanwhile, "Portions of the Pebble deposit have superior silver grades that have not yet been optimized," the consulting firm observed.

The preliminary assessment does not consider underground mine development as a primary case. "Further assessment of this option is fully warranted, including through development of an early access shaft during the initial 25 years of mining, to evaluate methodologies for determining relative economics of an underground mine and confirming its performance through feasibility-level studies," Wardrop advised. Wardrop's analysis says the Pebble Project "is being designed to achieve international best practice standards of design and performance such that key environmental and cultural values are protected and meaningful development benefits accrue to local communities, the State of Alaska and the United State of America."

However, Pebble has become a lightning rod for controversy among national environmental, sportsmen's and fishery groups. The December 2010 issue of National Geographic featured a several-page spread asserting that the massive project could possibly jeopardize "the world's richest sockeye salmon fishery." Fifty national jewelry chains have pledged not to buy gold from the Pebble Mine.

On February 12th of this year, thousands of customers of the Orvis retail chain received an urgent appeal from the company's CEO to help Save Bristol Bay by notifying the U.S. EPA of their opposition to the Pebble Mine Project.